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(54) DUCT MUFFLER

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a duct muffler without fabric fly, etc., without using fabric materials, etc., and by which large attenuation quantity can be obtained even in a low frequency band without increasing cross-sectional dimensions of a duct very much.

SOLUTION: The duct muffler is constituted as an acoustically soft boundary (installation of acoustic tubes 2, 4, 3, etc.), where sound pressure of almost the entire surface of a pair of opposed wall surface boundaries 1A, 1B almost becomes zero on a boundary surface for over about half-wavelength or more of object sound waves in the length direction of a rectangle cross-sectional duct 10 and drastic sound reduction performance which does not exist in the conventional case can be obtained simply by constituting at least minimum required surface 1A, 1B in the duct 10 as the acoustically soft boundary for over prescribed length (sound reduction performance of 40 dB can be obtained for over a half octave width).

